



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/525,464	02/24/2005	Marcin Wielgosz	LHUD-01301-NUS	3828
33794	7590	08/13/2007	EXAMINER	
MATTHIAS SCHOLL			VU, BAID	
14781 MEMORIAL DRIVE			ART UNIT	
SUITE 1319			PAPER NUMBER	
HOUSTON, TX 77079			2169	
			NOTIFICATION DATE	DELIVERY MODE
			08/13/2007	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

USPTORECEIPT@GMAIL.COM
IPRECEIPT@GMAIL.COM

Office Action Summary	Application No.		Applicant(s)	
	10/525,464		WIELGOSZ ET AL.	
	Examiner		Art Unit	
	Bai D. Vu		2169	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 07 May 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-26 is/are pending in the application.
- 4a) Of the above claim(s) 4,6,8,10,12 and 13 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3,5,7,9,11, and 14-26 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 07 May 2007 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- 1. ☐ Certified copies of the priority documents have been received.
- 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
- 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Applicant has amended claims 7, 9, 14, 23 and 24 in the amendment filed on 05/07/2007.

Claims 1-3, 5, 7, 9, 11, and 14-26 are pending in this Office Action.

Response to Arguments

2. Applicant's arguments with respect to claims 1-3, 5, 7, 9, 11, and 14-26 have been considered but are moot in view of the new ground(s) of rejection.

Claim Objections

3. Claim 1 is objected to because of the following informalities:

Line 7, "**these nodes**" should be replaced by "**the nodes**".

Line 18, "**and/or**" should be replaced by "**and**" or "**or**" to make claim clearer.

Line 22, "**their**" should be replaced by "**the packets**".

Appropriate correction is required.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claim 1 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

As per claim 1:

The phrase "the data processing system" in line 3 of the claim lack of antecedent basis.

The phrase "the system", in line 7, is unclear whether "the system" is the data processing system or "the system" is the packet data transmission system.

The phrase "these rules", in line 12, is unclear whether "these rules" is "the general rules" or "processing rules".

The phrase "these rules", in line 13, is unclear whether "these rules" is one of "processing rules", "general rules", or "the input rules".

The phrase "these rules", in line 16, is unclear whether "these rules" is one of "processing rules", "general rules", "input rules", or "output rules".

Appropriate correction is required.

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

7. **Claims 1-3, 5, 7, 11, 14-19, and 21-26** are rejected under 35 U.S.C. 102(e) as being anticipated by Regula (US Pat No. 6,885,670 B1).

As per **claim 1**, Regula discloses “a method for control of data flow in a packet data transmission system based on filtering and performing actions on packets transmitted through a network, according to predetermined packet processing rules characterized in that to the data processing system comprising a network of nodes including input nodes (IN1-INn), output nodes (OUT1-OUTn) and intermediate nodes including data processing nodes (PROC1-PROCn) or multiplexers (MUX1-MUXo)” as a method and apparatus for implementing a system interconnect for transporting a first cell containing a plurality of data between a plurality of nodes (col. 3 lines 13-15) wherein a cell is referred to as a packet of data; a method and apparatus for initializing a plurality of nodes on a ring network of a system interconnect includes a network also having a plurality of links with initialization being accomplished by a first node emitting a reset sequence to a second node and the second node further emits the reset

sequence (col. 3 lines 39-44); and as the initiation cell is transmitted from the source node 915 onto the secondary ring 907 and traverses the secondary ring 907 towards the coupler node 909 through some number of intermediate non-coupler nodes (col. 25 lines 25-28) wherein a plurality of nodes on a ring network are referred to as input nodes, output nodes, and data processing nodes or multiplexers; these routing decision rules are defined and hereinafter discussed. One skilled in the art will understand that these routing rules support additional topologies beyond those described herein and further that the routing rules may be modified to support yet additional topologies (col. 9 lines 39-43) referred as processing rules assigned in each node; the pair of adjacent nodes have a source node and a receiver node with each of the plurality of nodes including an input section connected to the incoming end of an input path and an output section connected to the outgoing end of an output path (col. 3 lines 19-24) referred as explanation of input, output, and intermediate nodes; one of these delayed data signals 607 is selected by a multiplexer 609 to produce a selected delayed data signal 611 (col. 14 lines 52-54 and FIG. 6) wherein a multiplexer is one of plurality intermediate nodes "data is supplied to the input nodes (IN1-INn) of the system, and from the data packets read from these nodes (IN1-INn) transmission units are formed," as cells, containing data and administrative information; generally travel around the ring in a unidirectional manner (col. 8 lines 45-46); and cells are sent from the source node 105 to the adjacent receiver node 107 over the counterclockwise unidirectional path 131 within the link (col. 8 lines 54-56) wherein the adjacent receiver node is referred to as an input node and cells are sent from the source node are referred to as transmission units "and each of

Art Unit: 2169

the nodes is assigned input and output rules as well as general rules (R)" as Addressing Rules and Routing Decision Rules (col. 19 line 44 and col. 20 line 14) "and whenever a packet is available at the node input (PROC1-PROCn, MUX1-MUXo, OUT1-OUTn), a check is made whether the general rules apply to a given unit, and in case of a positive result of this check, the commands, determined by these rules, are executed, and then a check is made whether the input rules of the given node apply to a given unit and if they do, the commands, determined by these rules, are executed and then the node (IN1-INn, PROC1-PROCn, MUX1-MUXo, OUT1-OUTn) functions are preformed and a check is made whether the output rules apply to a given unit and in case of a positive result of this check, the commands, determined by these rules, are executed," as Header Error Check (col. 33 line 42); and initiation cell errors (other than header errors) are detected by means of the CRC or parity checks in the attributes word are reported with a response code of 1. Response code 2 (rejected due to lock) invokes a retry after a delay to allow the competing locked operation to complete. Response codes 3-5 result in the same error response being given at the source node that was given at the destination node unless the transaction was a posted write (col. 32 lines 35-37) "and then in the output nodes (OUT1-OUTn), the packets are extracted from transmission units, which are created by adding a label field, a type field and/or a size field to the packet and," as each node in turn registers the HostID field and the node's position, adds one to the position (X) it receives from its link inputs, and passes the ID word with the incremented position on to the next node at a send identifier state 1615 (col. 42 lines 45-48) "when a rule is a conversion rule, a check is made whether a given

Art Unit: 2169

conversion algorithm requires additional rules being present and if it does and the additional rules are not present, the packet is rejected and the packets to which the rule applies are defined by specifying their label, type, size or similar parameters” as the node 101 processes PCI bus commands generated by the host computer 113 to transmit information (contained in cells) over the ring 100 to the node 103. At the node 103 this information is converted to appropriate PCI bus operations and so communicates with the input/output module 117 (col. 6 lines 59-64) referred as using a conversion rule; and a 12 bit subfield is reserved for response codes and associated messages. Table 21 gives the response codes as implemented in a preferred embodiment (col. 32 lines 32-34) referred as packet rejection specified by fields and code in tables TABLE 20 and TABLE 21.

As per claim 2, Regula discloses “the method according to claim 1, characterized in that in the input nodes (IN1-INn) the transmission units are assigned labels, which identify the input node (IN1-INn), which a given unit originates from” as however, the address of the source node was also stored in the SrcID subfield 706 (col. 24 lines 4-5).

As per claim 3, Regula discloses “the method according to claim 1, characterized in that the rules define a command assigning labels to a transmission unit and/or the rules define a filtering command, the filtering being achieved by replacing packets of given transmission units with empty packets” as an interrupt transition cell

Art Unit: 2169

contains only header and attributes information. Interrupt transition cells are generated both to signal transitions of external interrupt pins and to signal internal events such as error conditions. The interrupt attribute word contains an interrupt message field. For interrupt transition cells relating to external interrupt pins, this field is filled with zeros (col. 38 lines 29-35) wherein a generated interrupt transition cell is referred to as a filtering command to replacing a data packet with an empty packet.

As per **claim 5**, Regula discloses “the method according to claim 1, characterized in that the rules define a transmission unit range filtering command, the filtering being achieved by replacing packets of transmission units within a given range with empty packets” as for interrupt transition cells relating to external interrupt pins, this field is filled with zeros (col. 38 lines 34-35) “and/or the rules define a command for replacing identification fields of packets in units, the command being implemented by replacing values in given fields with different ones” as for signaling an internal event, this field contains a binary code that represents the event. An interrupt transition cell is handled as an initiation cell that engenders a response cell (col. 38 lines 35-38)

As per **claim 7**, Regula discloses “the method according to claim 1, characterized in that the rules define a keep command, the keeping being achieved by passing on only certain transmission units and replacing packets in the remaining transmission units with empty packets and/or by passing on only certain range of transmission units and replacing packets in the remaining transmission units with empty

Art Unit: 2169

packets” as the null signal eventually traverses the ring and returns to the clock originator node advancing that node to a link selection register initialization state 1621. Each non-clock originator node in the wait null state 1619 passes whatever signal it receives through to its neighbor node. When a non-clock originator node detects a null signal for more than 31 data clocks, the non-clock originator node advances to the link selection register initialization state 1621. At the conclusion of the link selection register initialization process, described hereinafter, the node enters a ready state 1623. When both links have reached the ready state 1623 on all nodes, the system is fully configured. If a node detects a disconnect (defined as all zero at the link inputs for greater than 31 data clocks) on one path, the node enters a loopback state 1627 that uses the other path of the link but otherwise operates normally. Finally either the loopback state 1627, or the ready state 1623 can enter the reset state 1603 as a result of a reset or resync condition (col. 42 line 65 to col. 43 line 15) wherein the processing of a node selecting a path of the link to the other node when receiving a cell with null signal referred as a defined keep command as claimed.

As per claim 11, Regula discloses “the method according to claim 1, characterized in that the rules define an assign command, the command being implemented by assigning a defined value to a predetermined packet identification field in all packets that the rule applies to and which comprise the identification field” as for bus transaction cells, the transfer attributes field 704 includes an address extension field used for systems employing an address longer than 32 bits. In primary/secondary ring

Art Unit: 2169

topologies (discussed hereinafter in the Network Topologies section), part of the transfer attributes field 704 is used as a source node identification (SrcID) subfield 706 that is required when generating response cells for bus transaction initiation cells. If the cell is a bus transaction cell, the SrcID subfield 706 is filled with the source node's address when the cell is generated (col. 16 lines 1-10) "and/or the rules define a conversion command, the command being implemented by conversion of packets of transmission units from a given format to another predetermined format" as The node 101 processes PCI bus commands generated by the host computer 113 to transmit information (contained in cells) over the ring 100 to the node 103. At the node 103 this information is converted to appropriate PCI bus operations and so communicates with the input/output module (col. 6 lines 59-64).

As per claim 14, Regula discloses "a method for control of data flow in a packet data transmission system provided with nodes having node functions, the method comprising the steps of:"

"encapsulating packet data into transmission units at input nodes;" as this embodiment limits the size of the cell to 52 bytes (a multiple of 32 bits). This size limitation allows the cell to be encapsulated within a 53 byte external ATM cell (col. 30 lines 20-23)

"assigning rules to each node, the rules defining additional functions to be performed by the node and being one of general rules applying to all transmission units processed in the node, input rules applying to transmission units incoming at a specific

Art Unit: 2169

input of the node and output rules applying to transmission units outgoing from a specific output of the node;" as Addressing Rules and Table 7 provides the rules for composing the routing tag's 729 address subfields for routing over one, two and three hops (col.19 lines 44-47); and Routing Decision Rules and a link interface determines, for each cell it receives, whether to forward the cell, and whether to capture the cell. The operation of the routing decision logic is summarized in Tables 8 and 9 and is a function both of a node's position in a hierarchy of rings and of the ring topology (col. 20 lines 15-20)

"processing data in each node by performing sequentially functions defined by general rules, functions defined by the input rules, the node functions and functions defined by the output rules; and" as Swallowing Decision, Forwarding Decision, and Capturing Decision (col. 20 line 62 to col. 21 line 29)

"converting transmission units to outgoing packet data at the output nodes" as the cell generator 147 translates transactions on the bus 143. Address-phase and write-transaction-data-phase bus transaction subactions are converted into initiation cells and stored in individual entries in the ITC (col. 7 lines 28-31); and the node 101 processes PCI bus commands generated by the host computer 113 to transmit information (contained in cells) over the ring 100 to the node 103. At the node 103 this information is converted to appropriate PCI bus operations and so communicates with the input/output module (col. 6 lines 59-64).

As per **claim 15**, Regula discloses “the method according to claim 1, wherein additionally a label is assigned to each transmission unit while encapsulating, the label identifying the input node, from which the transmission unit originates” as however, the address of the source node was also stored in the SrcID subfield 706 (col. 24 lines 4-5).

As per **claim 16**, Regula discloses “the method according to claim 1, wherein the rules define a label command, which causes assigning a label to each transmission unit” as a PCI bus write command creates a write transaction initiation cell. An acknowledgment response cell completes the transaction initiated by a write transaction initiation cell. A PCI bus read command creates a read transaction initiation cell (col. 8, lines 35-36 and lines 38-39).

As per **claim 17**, Regula discloses “the method according to claim 1, wherein the rules define a filter command, which causes replacing specific data packets in the transmission units with empty data packets” as an interrupt transition cell contains only header and attributes information. Interrupt transition cells are generated both to signal transitions of external interrupt pins and to signal internal events such as error conditions. The interrupt attribute word contains an interrupt message field. For interrupt transition cells relating to external interrupt pins, this field is filled with zeros (col. 38 lines 29-35) wherein a generated interrupt transition cell is referred to as a filtering command to replacing a data packet with an empty packet.

As per claim 18, Regula discloses “the method according to claim 1, wherein the rules define a remap command, which causes remapping of specific values in a specific field within data packets in the transmission units” as the AMCAM 145 translates a PCI address into the routing information required to transport a bus transaction cell to a particular node. The size of the AMCAM 145 is implementation dependent and determines both the maximum number of nodes that can be supported as well as the granularity of mapping of local bus addresses to nodes on the interconnect (col. 29 lines 6-12); and each node also determines its relative position number. When this process completes, each node knows its own address as well as that of the host and learns the number of nodes in the network. Each node computes its own address by adding the HostID to the relative position number recorded on the clockwise link (col. 40 lines 29-34).

As per claim 19, Regula discloses “the method according to claim 1, wherein the rules define a keep command, which causes passing transmission units with data packets having specific values of a specific field, and replacing data packets of all other transmission units with empty data packets” as the null signal eventually traverses the ring and returns to the clock originator node advancing that node to a link selection register initialization state 1621. Each non-clock originator node in the wait null state 1619 passes whatever signal it receives through to its neighbor node. When a non-clock originator node detects a null signal for more than 31 data clocks, the non-clock originator node advances to the link selection register initialization state 1621. At the

conclusion of the link selection register initialization process, described hereinafter, the node enters a ready state 1623. When both links have reached the ready state 1623 on all nodes, the system is fully configured. If a node detects a disconnect (defined as all zero at the link inputs for greater than 31 data clocks) on one path, the node enters a loopback state 1627 that uses the other path of the link but otherwise operates normally. Finally either the loopback state 1627, or the ready state 1623 can enter the reset state 1603 as a result of a reset or resync condition (col. 42 line 65 to col. 43 line 15) wherein the processing of a node selecting a path of the link to the other node when receiving a cell with null signal referred as a defined keep command as claimed.

As per **claim 21**, Regula discloses "the method according to claim 1, wherein the rules define an assign command, which causes setting a specific field of packets in transmission units to a specific value" as for bus transaction cells, the transfer attributes field 704 includes an address extension field used for systems employing an address longer than 32 bits. In primary/secondary ring topologies (discussed hereinafter in the Network Topologies section), part of the transfer attributes field 704 is used as a source node identification (SrcID) subfield 706 that is required when generating response cells for bus transaction initiation cells. If the cell is a bus transaction cell, the SrcID subfield 706 is filled with the source node's address when the cell is generated (col. 16 lines 1-10).

As per **claim 22**, Regula discloses “the method according to claim 1, wherein the rules define a convert command, which causes converting a format of chosen packets in transmission units” as the cell generator 147 translates transactions on the bus 143. Address-phase and write-transaction-data-phase bus transaction subactions are converted into initiation cells and stored in individual entries in the ITC (col. 7 lines 28-31); and the node 101 processes PCI bus commands generated by the host computer 113 to transmit information (contained in cells) over the ring 100 to the node 103. At the node 103 this information is converted to appropriate PCI bus operations and so communicates with the input/output module (col. 6 lines 59-64).

As per **claim 23**, Regula discloses “the method according to claim 1, further comprising the steps of:”

“checking if in the output nodes exist a specific conversion algorithm and further rules required for conversion of the chosen data packets, the checking made prior to converting the format of the chosen data packets in the transmission units; executing the specific conversion algorithm if the specific conversion algorithm and further rules required for conversion of the chosen data packets exist in the output nodes; and” as constructing the routing tag is accomplished by capturing the address from the bus and converting the address to a value stored in the routing tag (col. 4 lines 45-48); and the cell generator 147 translates transactions on the bus 143. Address-phase and write-transaction-data-phase bus transaction subactions are converted into initiation cells and stored in individual entries in the ITC 149 (col. 7 lines 28-31)

“rejecting the transmission unit if no specific conversion algorithm and further rules required for conversion of the chosen data packets exist in the nodes” as response code 2 (rejected due to lock) invokes a retry after a delay to allow the competing locked operation to complete (col. 32 lines 38-39); and TABLE 21 (col. 33 lines 28-40).

As per claim 24, Regula discloses “a device for data flow control in a packet data transmission system, the device comprising:”

“input nodes, having node functions related to encapsulating incoming data packets into transmission units;” as Cell Processing Within the Node and FIG. 10 illustrates the processes used by the link interface to receive and transmit a cell (col. 27 lines 53-55); and this embodiment limits the size of the cell to 52 bytes (a multiple of 32 bits). This size limitation allows the cell to be encapsulated within a 53 byte external ATM cell. Thus, bus transaction cells may contain up to forty bytes of payload data (col. 30 lines 20-24)

“intermediate nodes, having node functions related to processing transmission units, whose inputs are connected to the outputs of the input nodes or other intermediate nodes;” as the initiation cell is transmitted from the source node 915 onto the secondary ring 907 and traverses the secondary ring 907 towards the coupler node 909 through some number of intermediate non-coupler nodes (col. 25 lines 25-28)

“output nodes, having node functions related to converting transmission units to outgoing data packets, whose inputs are connected to the outputs of the input nodes or

Art Unit: 2169

intermediate nodes,” as the cell generator 147 translates transactions on the bus 143. Address-phase and write-transaction-data-phase bus transaction subactions are converted into initiation cells and stored in individual entries in the ITC (col. 7 lines 28-31); and the node 101 processes PCI bus commands generated by the host computer 113 to transmit information (contained in cells) over the ring 100 to the node 103. At the node 103 this information is converted to appropriate PCI bus operations and so communicates with the input/output module (col. 6 lines 59-64) “wherein the input nodes, the intermediate nodes and the output nodes have assigned rules, the rules defining additional functions to be performed by the input nodes, the intermediate nodes and the output nodes and being one of general rules applying to all transmission units processed in the node, input rules applying to transmission units incoming at a specific input of the node, and output rules applying to transmission units outgoing from a specific output of the node” as Addressing Rules and Table 7 provides the rules for composing the routing tag's 729 address subfields for routing over one, two and three hops (col.19 lines 44-47); and Routing Decision Rules and a link interface determines, for each cell it receives, whether to forward the cell, and whether to capture the cell. The operation of the routing decision logic is summarized in Tables 8 and 9 and is a function both of a node's position in a hierarchy of rings and of the ring topology (col. 20 lines 15-20)

As per **claim 25**, Regula discloses “the device according to claim 24, wherein the intermediate nodes are data processing nodes and multiplexers” as one of these

Art Unit: 2169

delayed data signals 607 is selected by a multiplexer 609 to produce a selected delayed data signal 611 (col. 14 lines 52-54 and FIG. 6) wherein a multiplexer is one of plurality intermediate nodes.

As per **claim 26**, Regula discloses "the device according to claim 24, wherein each of the transmission units consists of a header and a data packet, and the header comprises a label, defining the input node, from which a given transmission unit originates" as Cell Structure and Addressing and FIG. 7 illustrates the format of a cell indicated by a general reference character 700. The cell 700 is the unit of transport in the interconnect and is composed of a header 701, a header error check (HEC) subfield 703, within a transfer attributes field 704 and a payload field 705 (col. 15 lines 59-64); and the address of the source node was also stored in the SrcID subfield 706 (col. 24 lines 4-5).

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. **Claims 9 and 20** are rejected under 35 U.S.C. 103(a) as being unpatentable over Regula in view of Goode et al. (US Pat. No. 6,639,896 B1).

As per claim 9, Regula does not explicitly disclose “the method according to claim 1, characterized in that the rules define a skip command, the skipping being achieved by passing on only certain transmission units and deleting the remaining transmission units and/or by passing on only certain range of transmission units and deleting the remaining transmission units”.

However, Goode et al. teaches the private data field 114 (a reserved vendor specific field) contains application specific data that facilitates payload handling. For example, in a video distribution system, the private data identifies the title identification codes (TIC) that are associated with specific programs being transported in the payload portion 104. The title identification code (TIC) field 114 is used to perform stream integrity checking on a packet-by-packet basis for data packets only. At some nodes within the system, when a data packet is received, the received TIC is compared to the expected TIC to verify that the correct content is being received. The expected TIC is stored in a lookup table that is indexed by the destination address from the received packet. When the TIC stored in the table matches the received TIC, then the packet has been received correctly, otherwise, an error has occurred and the packet needs to be removed from the stream (col. 4 lines 42-57).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to apply Goode et al. teaching of performing stream integrity checking on data packet into Regula system in order to have a packet structure enables the network to deliver digital information through the ASI ring network to a user that is identified in the routing information field (Goode et al., col. 1 line 42-57).

As per claim 20, Regula does not explicitly disclose “the method according to claim 1, wherein the rules define a skip command, which causes passing transmission units with data packets having specific values of a specific field, and removing all other transmission units”.

However, Goode et al. teaches the private data field 114 (a reserved vendor specific field) contains application specific data that facilitates payload handling. For example, in a video distribution system, the private data identifies the title identification codes (TIC) that are associated with specific programs being transported in the payload portion 104. The title identification code (TIC) field 114 is used to perform stream integrity checking on a packet-by-packet basis for data packets only. At some nodes within the system, when a data packet is received, the received TIC is compared to the expected TIC to verify that the correct content is being received. The expected TIC is stored in a lookup table that is indexed by the destination address from the received packet. When the TIC stored in the table matches the received TIC, then the packet has been received correctly, otherwise, an error has occurred and the packet needs to be removed from the stream (col. 4 lines 42-57).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to apply Goode et al. teaching of performing stream integrity checking on data packet into Regula system in order to have a packet structure enables the network to deliver digital information through the ASI ring network to a user that is identified in the routing information field (Goode et al., col. 1 line 42-57).

Conclusion

10. The following prior art made of record on form PTO-892 and not relied upon is cited to establish the level of skill in the applicant's art and those arts considered reasonably pertinent to applicant's disclosure. See **MPEP 707.059(c)**.

US-6,243,382 B1

US-2002/0146028 A1

US-2004/0062277 A1

11. The examiner requests, in response to this Office Action, support is shown for language added to any original claims on amendment and any new claims. That is, indicate support for newly added claim language by specifically pointing to page(s) and line number(s) in the specification and/or drawing figure(s). This will assist the examiner in prosecuting the application.

12. When responding to this Office Action, applicant is advised to clearly point out the patentable novelty which he or she thinks the claims present, in view of the state of the art disclosed by the references cited or the objections made. He or she must also show how the amendments avoid such references or objections See 37 CFR 1.111(c).

Contact Information

14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Bai D. Vu whose telephone number is 571-270-1751. The examiner can normally be reached on Mon - Fri 7:30 - 5:00 EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Christian Chace can be reached on 571-272-4190. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Bai Vu

07/20/2007

cy



CHRISTIAN CHACE
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100